

FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER U-R-015-0380 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2019	KFPXL03.4CSD	3.4	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT	APPLICATION		
Electronic Direct Injection, Electronic Control Module, Turbocharger, Charge Air Cooler, Diesel Oxidation Catalyst, Exhaust Gas Recirculation			Tractor, Loader, Dozer, and Other Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

POWER CLASS	EMISSION STANDARD		EXHAUST (g/kw-hr)					OPACITY (%)		
	CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final / ALT 5% NOx	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	3.40	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.15	2.92	-	0.6	0.02	-		-

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

_ day of November 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

E0#: U-R-015-0380 Attachment: VI Date: 8/2/18

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque		9.Emission Control	
KFPXL03.4CSD	F5DFL413J*C	F5DFL413J*C	106 @ 2300	87	N/A	329 @ 1500	101	N/A	DOI ECM TO CAC DOC EGR.	
KFPXL03.4CSD	F5DFL413K*C	F5DFL413K*C	98 @ 2300	79	N/A	301 @ 1500	93	N/A	DDI ECM TC CAC DOC EGR.	
KFPXL03.4CSD	F5DFL413L*C	F5DFL413L*C	84 @ 2300	68	N/A	260 @ 1500	81	N/A	DDI ECM TC CAC DOC EGR.	